Table 16.1 Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program, 1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints, Both Sexes by Race/Ethnicity

	JP Tre	end 1	JP Tre	end 2	JP Tre	nd 3	JP Tr	end 4	JP Tre	end 5	JP Tre	end 6	AAF	C ^d
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2002-11	2007-11
SEER 9 Delay-Adjus	ted Incide	nce ^a , 197	75-2011											
All Races	1975-85	4.7*	1985-11	2.6*									2.6*	2.6*
White	1975-81	6.3*	1981-06	3.2*	2006-11	1.3							2.1*	1.3
Black	_	-											-	-
SEER 13 Delay-Adju	sted Incide	ence ^b , 19	92-2011											
All Races	1992-96	4.8*	1996-11	1.8*									1.8*	1.8*
White	1992-08	2.9*	2008-11	-0.9									1.6*	0.1
Black	_	-											_	-
SEER 9 Observed In	ncidenceª, 1	L975-2011	_											
All Races	1975-81	6.0*	1981-06	2.9*	2006-11	1.0							1.8*	1.0
White	1975-81	6.3*	1981-06	3.2*	2006-11	0.9							1.9*	0.9
Black	1975-11	0.0											0.0	0.0
SEER 13 Observed I	incidence ^b ,	1992-201	<u>.1</u>											
All Races	1992-96	4.8*	1996-11	1.8*									1.8*	1.8*
White	1992-08	2.9*	2008-11	-1.5									1.4*	-0.4
White NH ^{ef}	1992-06	3.5*	2006-11	0.7									1.9*	0.7
Black	1992-95	37.1*	1995-01	-8.0	2001-11	1.9							1.9	1.9
Black NH ^{ef}	1992-95	37.0*	1995-01	-8.1	2001-11	2.2							2.2	2.2
API ^e	1992-11	0.7											0.7	0.7
AI/AN ^{eg}	1992-11	1.0											1.0	1.0
Hispanic ^f	1992-11	0.6											0.6	0.6

U.S. Cancer Mortality^c, 1975-2011

All Races

White Black

U.S. Cancer Mortality^c, 1992-2011

All Races

White

White NH^{ef}

Black

Black NH^{ef}

APT^e

AI/AN^{eg}

Hispanic^f

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (http://surveillance.cancer.gov/joinpoint/). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).
Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.

Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

The APC/AAPC is significantly different from zero (p<.05).

Joinpoint regression line analysis could not be performed on data series.

Table 16.2 Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program, 1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints, Males by Race/Ethnicity

	JP Tre	end 1	JP Tre	end 2	JP Tre	end 3	JP Tre	end 4	JP Tre	end 5	JP Tr	end 6	AAF	C ^d
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2002-11	2007-11
SEER 9 Delay-Adjus	sted Incide	nce ^a , 197	5-2011											
All Races	1975-86	5.7*	1986-11	2.9*									2.9*	2.9*
White	1975-86	5.8*	1986-08	3.3*	2008-11	0.0							2.2*	0.8
Black	-	-												-
SEER 13 Delay-Adju	sted Incide	ence ^b , 19	92-2011											
All Races	1992-11	2.3*											2.3*	2.3*
White	1992-08	3.0*	2008-11	-0.8									1.8*	0.2
Black	-	-											-	-
SEER 9 Observed Ir	ncidenceª, 1	975-2011	<u>.</u>											
All Races	1975-86	5.5*	1986-08	3.0*	2008-11	-0.2							1.9*	0.6
White	1975-86	5.7*	1986-08	3.3*	2008-11	-0.6							2.0*	0.4
Black	1975-11	0.0											0.0	0.0
SEER 13 Observed 1	Incidence ^b ,	1992-201	.1											
All Races	1992-08	2.6*	2008-11	-0.8									1.4*	0.1
White	1992-08	3.0*	2008-11	-1.4									1.5*	-0.3
White NH ^{ef}	1992-08	3.4*	2008-11	-1.1									1.9*	0.0
Black	1992-95	75.1*	1995-04	-7.8*	2004-11	3.2							0.6	3.2
Black NH ^{ef}	1992-95	75.7*	1995-04	-7.6*	2004-11	3.1							0.6	3.1
API ^e	1992-11	1.4											1.4	1.4
AI/AN ^{eg}	1992-11	1.4											1.4	1.4
Hispanic ^f	1992-11	1.2*											1.2*	1.2*

U.S. Cancer Mortality^c, 1975-2011

All Races

White

Black

U.S. Cancer Mortality^c, 1992-2011

All Races

White

White NH^{ef}

Black

Black NH^{ef}

 ${\tt API}^{\tt e}$

 ${\rm AI/AN^{eg}}$

Hispanic^f

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (http://surveillance.cancer.gov/joinpoint/). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

- Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).
 Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
- Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and
 The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.
- API Asian/Pacific Islander, AI/AN American Indian/Alaska Native, NH Non-Hispanic
 - Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

 The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.
- The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VI
 Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
- * The APC/AAPC is significantly different from zero (p<.05).</p>
- Joinpoint regression line analysis could not be performed on data series.

Table 16.3 Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program, 1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints, Females by Race/Ethnicity

	JP Tre	nd 1	JP Tre	nd 2	JP Tre	end 3	JP Tre	end 4	JP Tr	end 5	JP Tre	end 6	AAF	C _q
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2002-11	2007-11
SEER 9 Delay-Adjus	sted Incider	nce ^a , 197	75-2011											
All Races	1975-81	5.1*	1981-11	2.3*									2.3*	2.3*
White	1975-81	6.2*	1981-93	2.2*	1993-05	3.5*	2005-11	1.1					1.9*	1.1
Black	-	-											-	-
SEER 13 Delay-Adju	usted Incide	ence ^b , 19	92-2011											
All Races	1992-97	4.1*	1997-11	1.5*									1.5*	1.5*
White	1992-05	3.1*	2005-11	0.7									1.5*	0.7
Black	-	-											-	-
SEER 9 Observed Ir	ncidenceª, 1	975-2011	_											
All Races	1975-80	5.5*	1980-08	2.4*	2008-11	-0.1							1.6*	0.5
White	1975-81	6.2*	1981-93	2.1*	1993-05	3.4*	2005-11	0.8					1.7*	0.8
Black	1975-11	-0.1											-0.1	-0.1
SEER 13 Observed I	Incidence ^b ,	1992-201	.1											
All Races	1992-97	4.1*	1997-11	1.4*									1.4*	1.4*
White	1992-05	3.1*	2005-11	0.4									1.3*	0.4
White NH ^{ef}	1992-06	3.5*	2006-11	0.4									1.8*	0.4
Black	1992-11	0.5											0.5	0.5
Black NH ^{ef}	1992-11	0.6											0.6	0.6
API ^e	1992-11	0.1											0.1	0.1
AI/AN ^{eg}	1992-11	0.8											0.8	0.8
Hispanic ^f	1992-11	0.3											0.3	0.3

U.S. Cancer Mortality^c, 1975-2011

All Races

White

Black

U.S. Cancer Mortality^c, 1992-2011

All Races

White

White NH^{ef}

Black

Black NH^{ef}

 ${\tt API}^{\tt e}$

AI/AN^{eg}

Hispanicf

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (http://surveillance.cancer.gov/joinpoint/). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

- Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).
 Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
- Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Fig. The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.
- API Asian/Pacific Islander, AI/AN American Indian/Alaska Native, NH Non-Hispanic
- Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

 The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.
- The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and V Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
- * The APC/AAPC is significantly different from zero (p<.05).</p>
- Joinpoint regression line analysis could not be performed on data series.

Table 16.4
Melanoma of the Skin (Invasive)

Delay-adjusted SEER Incidence Rates by Year, Race and Sex

Year of Diagnosis: 1975 7.89 8.54 7.44 8.70 9.40 8 1977 8.86 9.78 8.15 9.87 10.85 9 1978 8.95 9.48 8.72 10.12 10.71 9 1979 9.55 10.56 8.91 10.79 11.93 10.81 1980 10.51 11.80 9.63 12.03 13.41 11.99 11.99 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11.983 11.09 12.66 10.03 12.66 14.42 11.984 11.41 12.92 10.43 13.12 14.84 12.19 1985 12.79 15.18 11.16 14.55 17.28 12.89 1987 13.68 15.94 12.17 15.67 18.19 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13.997 14.64 17.62 12.55 17.19 20.57 14 1994 15.68 19.87 16.49 20.30 13.83 19.95 10.90 20.20 19.97 24.06 15.15 23.54 22.17 22.00 20.02 19.37 24.06 16.15 23.54 22.17 29.15 20.00 20.02 19.37 24.06 16.15 23.54 22.97 29.15 20.00 20.02 19.37 24.06 16.18 23.57 29.15 20.00 20.02 19.37 24.06 16.18 23.57 29.15 20.00		
1975 7.89 8.54 7.44 8.70 9.40 8 1976 8.15 8.67 7.69 9.00 9.54 8 1977 8.86 9.78 8.15 9.87 10.85 9 1978 8.95 9.48 8.72 10.12 10.71 9 1979 9.55 10.56 8.91 10.79 11.93 10 1980 10.51 11.80 9.63 12.03 13.41 11 1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67		Females
1975 7.89 8.54 7.44 8.70 9.40 8 1976 8.15 8.67 7.69 9.00 9.54 8 1977 8.86 9.78 8.15 9.87 10.85 9 1978 8.95 9.48 8.72 10.12 10.71 9 1979 9.55 10.56 8.91 10.79 11.93 10 1980 10.51 11.80 9.63 12.03 13.41 11 1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.92 13 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67		
1976 8.15 8.67 7.69 9.00 9.54 8 1977 8.86 9.78 8.15 9.87 10.85 9 1978 8.95 9.48 8.72 10.12 10.71 9 1979 9.55 10.56 8.91 10.79 11.93 10 1980 10.51 11.80 9.63 12.03 13.41 11 1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98<	of Diagnosis:	
1977 8.86 9.78 8.15 9.87 10.85 9 1978 8.95 9.48 8.72 10.12 10.71 9 1979 9.55 10.56 8.91 10.79 11.93 10 1980 10.51 11.80 9.63 12.03 13.41 11 1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1999 13.87 16.69 11.86	'5	8.22
1978 8.95 9.48 8.72 10.12 10.71 9 1979 9.55 10.56 8.91 10.79 11.93 10 1980 10.51 11.80 9.63 12.03 13.41 11 1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86	'6	8.53
1979 9.55 10.56 8.91 10.79 11.93 10 1980 10.51 11.80 9.63 12.03 13.41 11 1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55	'7	9.14
1980 10.51 11.80 9.63 12.03 13.41 11 1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23	'8	9.93
1981 11.09 12.09 10.44 12.57 13.55 12 1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1994 15.68 19.87 12.64 <td>19</td> <td>10.10</td>	19	10.10
1982 11.19 12.51 10.28 12.81 14.21 11 1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 <td>30</td> <td>11.11</td>	30	11.11
1983 11.09 12.66 10.03 12.66 14.42 11 1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 <td>31</td> <td>12.00</td>	31	12.00
1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.75 14.89 <td>32</td> <td>11.88</td>	32	11.88
1984 11.41 12.92 10.43 13.12 14.84 12 1985 12.79 15.18 11.16 14.55 17.28 12 1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 <td>33</td> <td>11.50</td>	33	11.50
1986 13.32 15.69 11.62 15.26 17.92 13 1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 <td>34</td> <td>12.04</td>	34	12.04
1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 <td>35</td> <td>12.73</td>	35	12.73
1987 13.68 15.94 12.17 15.67 18.19 14 1988 12.89 14.97 11.48 14.98 17.41 13 1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 <td>16</td> <td>13.40</td>	16	13.40
1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2001 19.00 23.95 15.55 23.00 28.52 19 2002 19.37 24.62 16.32 <td>37</td> <td>14.02</td>	37	14.02
1989 13.75 16.39 11.93 15.98 18.98 13 1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.37 24.62 16.32 <td>38</td> <td>13.36</td>	38	13.36
1990 13.87 16.69 11.86 16.24 19.40 14 1991 14.64 17.62 12.55 17.19 20.57 14 1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.37 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 <td>39</td> <td>13.94</td>	39	13.94
1992 14.80 18.35 12.23 17.32 21.37 14 1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	10	14.02
1993 14.65 18.21 12.09 17.15 21.14 14 1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	1	14.85
1994 15.68 19.87 12.64 18.50 23.37 14 1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	2	14.43
1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	13	14.29
1995 16.49 20.30 13.83 19.45 23.64 16 1996 17.38 21.76 14.22 20.62 25.51 17 1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	94	14.97
1997 17.77 21.75 14.89 21.07 25.39 18 1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	15	16.59
1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	16	17.11
1998 17.97 22.20 15.03 21.57 26.36 18 1999 18.34 22.96 15.12 22.07 27.22 18 2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	7	18.02
2000 19.00 23.95 15.55 23.00 28.52 19 2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	8	18.28
2001 19.73 24.62 16.32 24.07 29.52 20 2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	19	18.50
2002 19.37 24.06 16.15 23.54 28.71 20 2003 19.60 24.30 16.28 23.97 29.15 20	00	19.21
2003 19.60 24.30 16.28 23.97 29.15 20)1	20.30
2003 19.60 24.30 16.28 23.97 29.15 20	12	20.06
	13	20.36
2004 20.75 25.62 17.37 25.45 31.07 21)4	21.58
	15	23.40
2006 22.20 27.85 18.16 27.42 33.68 22	06	22.97
	ر 17	22.58
		24.01
		23.46
		24.95
		23.54

Note: Delay-adjusted melanoma of the skin rates cannot be calculated for the SEER 9 Black population due to low case counts. Additional information on the model used to delay-adjust SEER Incidence rates can be found at (http://surveillance.cancer.gov/delay/).

⁽http://surveillance.cancer.gov/delay/).

SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 16.5
Melanoma of the Skin (Invasive)

Age-adjusted SEER Incidence Rates by Year, Race and Sex

		All Races			Whites			Blacks	
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis: 1975-2011	16.62	20.57	13.96	19.59	24.01	16.64	1.02	1.20	0.91
1975	7.89	8.54	7.44	8.70	9.40	8.22	1.02		0.91
1976	8.15	8.54	7.44	9.00	9.40	8.22	1.69	_	_
1977	8.86	9.78	8.15	9.87	10.85	9.14	1.09	_	_
1978	8.95	9.78	8.72	10.12	10.85	9.14		_	_
1976	9.55	10.56	8.91	10.12	11.93	10.10	_	_	_
1979	9.55	10.56	9.63	10.79	13.41	10.10	_	_	_
							1 25	_	_
1981	11.09	12.09	10.44	12.57	13.55	12.00	1.35	_	_
1982	11.19	12.51	10.27	12.81	14.20	11.88	_	=	_
1983	11.09	12.66	10.03	12.64	14.41	11.49	_	_	_
1984	11.40	12.92	10.42	13.10	14.82	12.02	=	-	-
1985	12.78	15.18	11.15	14.52	17.24	12.71	-	_	-
1986	13.31	15.69	11.61	15.23	17.88	13.37	_	-	-
1987	13.67	15.93	12.16	15.63	18.14	13.99	1.30	_	_
1988	12.88	14.96	11.47	14.94	17.37	13.33	1.07	-	-
1989	13.73	16.37	11.92	15.92	18.91	13.89	1.13	_	-
1990	13.86	16.68	11.85	16.18	19.33	13.96	1.16	-	_
1991	14.63	17.60	12.54	17.12	20.49	14.79	1.10	-	-
1992	14.78	18.33	12.22	17.24	21.27	14.37	_	_	-
1993	14.64	18.19	12.08	17.07	21.05	14.22	-	-	-
1994	15.66	19.84	12.62	18.41	23.26	14.90	1.03	_	-
1995	16.47	20.28	13.81	19.36	23.53	16.51	1.73	3.08	-
1996	17.36	21.73	14.20	20.52	25.39	17.03	1.11	-	_
1997	17.74	21.72	14.87	20.97	25.26	17.93	1.10	_	_
1998	17.94	22.16	15.01	21.47	26.23	18.19	1.19	_	_
1999	18.31	22.92	15.09	21.94	27.06	18.39	1.14	_	_
2000	18.96	23.90	15.52	22.85	28.34	19.09	0.83	_	_
2001	19.69	24.57	16.28	23.91	29.33	20.17	0.81	_	_
2002	19.32	24.00	16.11	23.38	28.51	19.92	1.11	_	_
2003	19.54	24.23	16.23	23.80	28.94	20.21	0.84	_	_
2004	20.68	25.53	17.31	25.25	30.83	21.41	0.82	_	_
2005	22.45	28.16	18.43	27.70	34.10	23.20	1.07	_	1.03
2006	22.09	27.72	18.07	27.17	33.37	22.77	0.98	_	_
2007	21.78	27.58	17.76	26.83	33.33	22.36	1.16	_	_
2008	23.14	29.26	18.83	28.58	35.45	23.75	1.25	1.42	_
2009	22.96	29.27	18.45	28.27	35.39	23.15	1.10	1.11	1.03
2010	23.77	29.88	19.46	29.18	35.83	24.50	1.04	-	0.97
2010	22.74	28.92	18.35	27.79	34.69	22.86	1.04	_	1.08

SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 16.7 Melanoma of the Skin (Invasive)

SEER Incidence^a and U.S. Death^b Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

		All Races			Whites			Blacks	
	Total	Males	Females	Total	Males	Females	Total	Males	Females
SEER Incidence Age at Diagnosis Age-Adjusted Rates, 2007-2011 All ages Under 65 65 and over	21.3 12.7 81.1	27.7 13.2 128.3	16.7 12.2 47.5	25.2 15.3 93.7	32.3 15.7 147.3	20.0 15.0 54.8	1.0 0.5 4.5	1.0 0.5 4.6	1.0 0.5 4.4
All ages (IARC world std) ^c	14.9	18.1	12.4	17.7	21.2	15.0	0.7	0.7	0.6
Age-Specific Rates, 2007-2011 <1 1-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+	0.1 0.1 0.3 1.1 3.6 6.7 9.3 12.8 16.5 22.7 29.5 37.3 49.6 64.0 75.2 88.7 99.1	0.3 0.9 2.1 4.2 7.3 10.3 14.9 22.1 32.4 46.3 66.3 89.7 113.0 140.1 165.4 181.7	- 0.2 0.3 1.4 5.2 9.2 11.3 15.2 18.2 23.2 26.8 28.8 34.3 41.3 44.0 49.7 55.6 55.4	0.1 0.4 1.4 4.6 8.2 11.5 15.9 20.2 27.5 35.1 44.6 58.2 75.0 88.4 103.2	- 0.3 1.1 2.7 5.2 8.8 12.6 18.0 26.5 38.2 54.8 77.1 104.1 132.0 161.5 187.3 203.2	- 0.2 0.4 1.8 6.5 11.4 14.3 19.2 22.5 28.6 32.1 34.7 40.3 48.8 51.4 57.9 60.8		- - - - - - - 1.2 1.6 2.8 4.2	

U.S. Mortality Age at Death Age-Adjusted Rates, 2007-2011 All ages Under 65 65 and over All ages (IARC world std)^c Age-Specific Rates, 2007-2011 <1 1 - 45-9 10-14 15-19 20 - 2425-29 30 - 3435-39 40 - 4445-49 50-54 55-59 60-64

65-69 70 - 7475-79 80 - 8485+

SEER 18 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

C Rates are per 100,000 and are age-adjusted to the IARC world standard population.

Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 16.8 Melanoma of the Skin (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year, Stage and Age

		All Races	\$		Whites			Blacks	
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-Year Relative Survival	(Dergent)								
Year of Diagnosis:	(Percent)								
1960-1963 ^a	_	_	_	60	51	68	_	_	_
1970-1973 ^a	_	_	_	68	62	75	_	_	_
1975-1977 ^b	81.9	77.5	86.3	82.0	77.7	86.2	56.7 ^g	_	_
1978-1980 ^b	82.7	77.7	87.7	82.8	77.8	87.8	59.8 ^h	_	_
1981-1983 ^b	82.7	78.3	87.2	82.7	78.4	87.1	61.9 ^g	_	_
1984-1986 ^b	86.6	82.5	91.0	86.3	82.2	90.9	70.0 ^h	_	_
1987-1989 ^b	88.0	84.8	91.5	87.9	84.7	91.3	78.6 ^g	_	89.5 ^g
1987-1989 1990-1992 ^b	89.2	86.9	91.7	89.2	86.9	91.7	59.6 ^g	_	-
1990-1992 1993-1995 ^b	89.7	87.2	92.6	89.5	87.0	92.6	70.2 ^g	65.3 ^g	69.7 ^h
1995-1995 1996-1998 ^b	90.9	89.5	92.7	90.8	89.2	92.7	70.2° 73.9 ^g	68.0 ^h	78.6 ^g
1990-1990 1999-2003 ^b	90.9	90.5	95.0	92.6	90.5	95.0	73.9 ^g 72.6 ^g	73.7 ^g	70.6° 71.4°
	92.6 92.9 ^f	90.5 91.1 ^f	95.0 ^f	92.6 92.9 ^f	90.5 91.1 ^f	95.0 95.0 ^f		64.6 ^g	81.2 ^g
2004-2010 ^b	92.9	91.1-	95.0	92.9	91.1-	95.0	75.1	64.63	81.23
5-Year Period Survival (Pe	ercent) ^{cd}								
2010	91.3	89.3	93.9	90.9	88.8	93.7	72.9	71.0	73.5
Stage Distribution (%) 200	04-2010 ^{ce}								
All Stages									
Number of cases	94,432	52,680	41,752	88,467	49,631	38,836	462	196	266
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	84	82	86	84	82	86	55	46	62
Regional	9	10	7	9	10	8	26	28	24
Distant	4	5	3	4	5	3	14	20	10
Unstaged	3	3	3	3	3	3	5	6	4
5-Year Relative Survival	(Percent), 2	2004-2010							
Age at Diagnosis:								h	
Ages <45	94.5	91.3	96.7	94.4	91.1	96.7	82.9	62.7 ^h	90.7
Ages 45-54	92.6	90.3	95.3	92.4	90.0	95.2	66.7 ^g	59.3 ^h	72.0 ^g
Ages 55-64	91.0	89.2	94.0	90.5	88.7	93.7	73.4 ^g	63.7 ^g	84.9 ^g
Ages 65-74	90.5	89.2	92.9	90.4	89.0	92.8	59.4 ^g	51.0 ^g	65.9 ^g
Ages 75+	85.6	86.2	84.7	85.2	85.8	84.2	64.8 ^g	63.7 ^h	62.7 ^h
Ages <65	92.7	90.1	95.6	92.4	89.7	95.4	75.4	62.4 ^g	84.2
Ages 65+	88.2	87.9	88.7	87.9	87.6	88.5	63.6 ^g	58.3 ^g	64.2 ^g
Stage ^e :									
All Stages	91.3	89.3	93.7	91.0	89.0	93.5	71.1	60.8	76.9
Localized	98.1	97.6	98.7	98.0	97.4	98.6	91.1	87.7 ^g	91.2
Regional	62.6	59.5	67.7	62.6	59.8	67.7	56.4 ^g	49.2 ^g	62.3 ^g
Distant	16.1	14.7	18.9	16.1	14.8	18.9	16.1 ^g	14.7 ^g	-
Unstaged	78.3	75.4	81.9	77.3	74.4	80.9	-	_	_
22 043 04	, 0 . 3		02.5	5		00.2			

Based on End Results data from a series of hospital registries and one population-based registry.

SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Based on follow-up of patients into 2011.

SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

Based on follow-up of patients into 2011.

Period survival provides a 2010 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2007-2009: 0-1 year survival),

^{(2006-2008: 1-2} year survival), (2005-2007: 2-3 year survival), (2004-2006: 3-4 year survival), (2003-2005: 4-5 years survival).

Stage at diagnosis is classified using SEER Summary Stage 2000. Stage distribution percentages may not sum to 100 due to rounding. The difference between 1975-1977 and 2004-2010 is statistically significant (p<.05).

The standard error is between 5 and 10 percentage points.

The standard error is greater than 10 percentage points.

Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 16.9 Melanoma of the Skin (Invasive)

SEER^a Relative Survival (Percent) By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Tim	ie																			
1-year	94.2	95.6	96.3	96.7	97.3	97.6	96.6	96.6	97.6	97.9	97.4	97.9	97.7	97.7	97.9	97.6	97.8	97.8	98.1	97.6
2-year	89.8	91.6	93.2	93.8	94.2	95.7	94.3	94.4	95.5	96.2	95.5	95.5	96.1	96.2	96.3	96.1	96.2	95.7	95.8	
3-year	86.1	88.0	90.7	91.9	92.6	93.8	92.2	92.7	94.0	94.5	94.1	94.3	94.9	94.6	95.0	94.6	94.6	94.5		
4-year	83.4	85.5	89.1	90.2	91.2	93.1	91.2	91.4	93.2	93.2	92.7	93.2	93.6	93.6	94.2	93.7	93.9			
5-year	82.0	83.5	87.7	89.3	90.1	92.2	89.8	90.9	92.3	92.1	92.1	92.9	93.2	93.1	93.1	92.8				
6-year	80.2	82.2	86.5	88.4	90.0	91.5	89.3	90.3	91.6	91.8	91.4	92.6	92.4	93.1	92.8					
7-year	78.9	81.6	85.8	87.7	90.0	91.1	88.6	90.3	91.6	91.5	91.2	92.0	91.9	92.3						
8-year	77.9	80.8	85.2	87.1	89.8	90.9	87.9	89.8	91.2	91.4	91.0	91.1	91.7							
9-year	77.0	80.2	84.9	87.0	89.4	90.4	87.7	89.7	90.9	91.4	90.8	90.6								
10-year	76.5	79.6	84.8	86.8	89.4	89.9	87.7	89.2	90.9	91.2	90.1									
11-year	76.0	79.2	84.3	86.5	89.1	89.7	87.7	89.2	90.9	90.8										
12-year	75.5	79.0	84.1	86.4	89.1	89.6	87.1	88.8	90.9											
13-year	75.2	78.6	83.9	86.4	88.6	89.5	86.8	88.7												
14-year	75.0	78.4	83.8	86.3	88.6	89.3	86.6													
15-year	74.5	78.2	83.8	86.3	88.6	89.2														
16-year	74.3	78.1	83.7	86.2	88.6															
17-year	74.3	77.8	83.7	86.2																
18-year	74.3	77.8	83.7																	
19-year	74.3	77.8	83.7																	
20-year	74.3	77.8	83.7																	

Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 16.10 Melanoma of the Skin (Invasive)

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time	е																			
1-year	92.4	94.0	95.2	96.1	96.3	96.6	96.2	96.3	97.1	97.4	96.5	96.9	97.0	97.5	97.6	97.2	97.5	97.0	97.3	97.2
2-year	86.7	88.7	91.3	92.5	92.0	94.3	93.3	93.7	94.3	95.4	93.8	94.1	94.8	95.6	95.9	95.5	95.3	94.5	94.4	
3-year	82.3	84.2	88.2	90.2	89.9	92.0	90.7	91.9	92.5	93.5	91.5	92.5	93.4	92.8	94.0	93.6	93.2	92.9		
4-year	78.9	81.2	86.1	88.3	87.9	91.1	89.8	90.4	91.3	92.1	89.9	90.9	91.8	91.8	92.7	92.6	92.6			
5-year	77.5	78.5	84.3	87.2	86.6	90.3	88.1	90.0	90.4	90.9	89.2	90.4	91.6	91.1	91.3	91.6				
6-year	75.5	77.2	83.1	86.2	86.3	89.5	87.2	89.5	89.1	90.3	88.3	90.1	90.7	91.1	90.8					
7-year	73.8	76.8	82.1	85.3	86.3	89.3	87.0	89.5	89.0	90.3	88.2	89.7	89.7	90.1						
8-year	72.6	75.9	81.5	84.6	86.0	88.9	86.2	89.2	88.7	90.2	88.1	88.5	89.4							
9-year	71.6	75.1	81.1	84.3	85.6	88.3	86.0	88.7	88.5	90.2	88.1	87.8								
10-year	71.2	74.6	81.1	84.1	85.5	87.8	85.7	88.3	88.5	90.1	87.4									
11-year	70.3	74.3	80.9	83.8	85.5	87.7	85.7	88.2	88.5	89.4										
12-year	69.8	74.1	80.7	83.7	85.5	87.7	84.8	87.5	88.5											
13-year	69.4	73.8	80.7	83.7	85.5	87.7	84.8	87.4												
14-year	69.4	73.4	80.2	83.5	85.5	87.7	84.2													
15-year	69.2	73.4	80.1	83.5	85.5	87.7														
16-year	68.9	73.4	79.8	83.5	85.2															
17-year	68.9	73.4	79.8	83.5																
18-year	68.9	73.4	79.8																	
19-year	68.9	73.4	79.8																	
20-year	68.9	73.4	79.8																	

Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 16.11 Melanoma of the Skin (Invasive)

SEER^a Relative Survival (Percent) By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time	e																			
1-year 2-year	96.1 92.9	97.3 94.7	97.6 95.3	97.4 95.3	98.5 96.7	98.8 97.3	97.0 95.4	97.0 95.2	98.2 96.9	98.4 97.0	98.5 97.6	99.0 97.2	98.6 97.5	98.0 96.9	98.3 96.8	98.1 96.9	98.1 97.2	98.9 97.3	99.0 97.7	98.1
3-year 4-year	89.9 87.8	91.9 89.8	93.5 92.3	93.8 92.5	95.7 94.9	95.9 95.3	94.0 92.8	93.6 92.6	95.6 95.3	95.7 94.7	97.1 96.2	96.4 95.9	96.5 95.6	96.5 95.6	96.1 96.0	95.9 94.9	96.3 95.5	96.4		
5-year 6-year	86.3 84.9	88.5 87.3	91.3 90.3	91.8 91.1	94.1 94.1	94.6 93.8	91.8 91.6	91.7 91.2	94.6 94.4	93.5 93.4	95.6 95.1	95.7 95.2	95.0 94.4	95.4 95.3	95.3 95.0	94.3				
7-year 8-year	83.9 83.0	86.5 85.9	89.8 89.2	90.6 90.2	94.1 94.1	93.3 93.3	90.5 89.7	91.0 90.5	94.3 93.8	92.9 92.9	94.7 94.2	94.6 94.0	94.2 93.9	94.8						
9-year 10-year	82.3 81.7	85.4	89.0 88.7	90.0	93.7	92.9	89.5	90.5	93.7 93.6	92.8 92.6	93.6 93.2	93.6								
11-year 12-year 13-year	81.4 80.9 80.7	84.3 84.1 83.6	88.0 87.8 87.5	89.7 89.5 89.5	92.9 92.9 92.0	92.0 91.4 91.4	89.5 89.5 88.9	90.2 90.2 90.0	93.6 93.6	92.4										
14-year 15-year	80.2 79.7	83.4 82.9	87.4 87.4	89.4 89.4	91.7 91.7	91.4 91.2 90.3	88.9	90.0												
16-year 17-year	79.6 79.6	82.6 82.4	87.4 87.4	89.3	91.7	50.5														
18-year 19-year	79.5 79.4	82.2 82.2	87.4 87.4																	
20-year	79.4	82.2	87.4																	

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 16.15 Melanoma of the Skin (Invasive)

SEER Incidence and U.S. Mortality Age-Adjusted Rates and Trends^a By Race/Ethnicity and Sex

SEER Incidence	Rate	R 18 Are 2007-2			ER 13 Are d 2002-2 AAPC (%)	011 ^c	Tren	R 9 Are d 2002-2 AAPC (%	2011 ^d
	Total	Males	Females	Total	Males	<u>Females</u>	Total	Males	Females
RACE/ETHNICITY									
All Races	21.3	27.7	16.7	1.8*	1.4*	1.4*	1.8*	1.9*	1.6*
White	25.2	32.3	20.0	1.4*	1.5*	1.3*	1.9*	2.0*	1.7*
White Hispanic ^e	4.7	4.9	4.7	0.8	1.5*	0.4	_	_	-
White Non-Hispanic ^e	29.5	37.3	23.9	1.9*	1.9*	1.8*	_	-	-
Black	1.0	1.0	1.0	1.9	-	-	0.0	0.0	-0.1
Asian/Pacific Islander	1.3	1.5	1.2	0.7	1.4	0.1	-	-	-
Amer Ind/Alaska Nat ^f	4.0	4.1	4.0		-	-		-	-
Hispanic ^e	4.6	4.8	4.6	0.6	1.2*	0.3		-	-
U.S. Mortality ^g		e 2007-2	011 0 persons		d 2002-2 AAPC (%)	011 ^h			
	Total	Males	Females	Total	Males	<u>Females</u>			

RACE/ETHNICITY

All Races

White White Hispanice White Non-Hispanice

Black

Asian/Pacific Islander

Amer Ind/Alaska Nat Total U.S. CHSDA Counties Non-CHSDA Counties

Hispanic^e

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.

Statistic not shown. Rate based on less than 16 cases for the time interval.

Trend based on less than 10 cases for at least one year within the time interval.

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry, and Rural Georgia.

The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG.

- The 2002-2011 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2011.
- d The 2002-2011 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over
 - diagnosis years 1975-2011.

 Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2007-2011 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia, North Dakota, and South Carolina. The 2002-2011 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, South Carolina and Vermont.
- Incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

US Mortality Files, National Center for Health Statistics, CDC.

The 2002-2011 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2011. The APC is significantly different from zero (p<.05).

Table 16.16 Melanoma of the Skin (Invasive)

Age-Adjusted SEER Incidence Rates^a By Registry, Race and Sex

		ll Races			Whites			Blacks	
	Total	Males	Females	Total	Males	Females	Total	Males	Females
SEER Incidence Rates ^a , 2007-2011									
California	20.82	27.70	15.68	24.18	32.00	18.27	0.91	0.82	0.93
Greater Bay Area	21.92	28.52	17.11	30.70	39.29	24.42	0.96	-	-
San Francisco-Oakland	22.57	29.71	17.37	32.69	42.22	25.67	0.97	-	=
San Jose-Monterey	20.70	26.25	16.64	27.24	34.14	22.25	=	-	-
Los Angeles	13.86	19.40	9.79	18.20	25.23	12.96	0.84	1.13	0.62
Greater California	23.71	31.18	18.04	24.76	32.58	18.76	0.97	-	1.31
Connecticut	22.66	28.52	18.71	24.32	30.17	20.43	1.50	-	-
Detroit	15.77	19.57	13.36	20.73	24.86	18.25	0.97	0.84	1.03
Georgia	22.19	29.66	17.00	29.89	38.27	23.93	1.08	1.19	1.01
Atlanta	25.03	33.78	19.09	39.79	50.29	32.45	1.17	1.48	0.99
Rural Georgia	18.55	26.29	13.29	27.79	37.35	21.00	=	-	-
Greater Georgia	21.05	28.01	16.19	26.34	34.05	20.81	0.99	1.04	0.96
Hawaii	19.98	26.98	14.28	62.78	81.71	44.96	=	-	-
Iowa	22.74	26.58	20.55	22.63	26.50	20.41	_	_	_
Kentucky	23.76	29.85	19.67	24.71	31.14	20.31	1.06	_	_
Louisiana	14.52	19.65	10.89	20.01	26.10	15.62	1.02	1.09	0.95
New Jersey	21.56	27.85	17.21	25.19	31.93	20.51	0.87	0.77	0.97
New Mexico	18.06	23.57	13.78	18.72	24.78	13.87	_	_	_
Seattle-Puget Sound	28.00	33.28	24.33	32.10	37.49	28.39	_	_	_
Utah	31.85	42.44	23.46	32.95	43.69	24.42	-	-	-
9 SEER Areas ^b	22.89	29.00	18.58	28.14	34.96	23.33	1.11	1.20	1.05
11 SEER Areas ^b	20.67	26.68	16.39	25.85	32.80	20.87	1.04	1.18	0.94
13 SEER Areas ^b	20.63	26.63	16.35	25.86	32.81	20.87	1.05	1.18	0.96
18 SEER Areas ^b	21.31	27.73	16.69	25.18	32.31	20.00	1.00	1.01	0.99

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130)

The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.

Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 16.21 Melanoma of the Skin (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2011 By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <19 ^e	0 to <36 ^e	>=36 ^g	Completeh
Race	Sex_										
All Races ^b	Both Sexes	282,028	208,237	155,229	107,755	79,776	53,373	771,284	924,397	35,834	960,231
	Males	151,313	105,989	77,824	52,347	35,218	22,168	395,832	459,686	11,534	471,220
	Females	130,715	102,248	77,405	55,408	44,558	31,205	375,452	464,711	24,300	489,011
White ^b	Both Sexes	270,630	201,635	149,586	103,407	76,509	51,407	742,777	889,700	33,779	923,479
	Males	145,767	102,885	74,988	50,377	34,052	21,320	382,176	443,630	10,979	454,609
	Females	124,863	98,750	74,598	53,030	42,457	30,087	360,601	446,070	22,800	468,870
Black ^b	Both Sexes	1,123	658	572	428	265	124	2,836	3,280	102	3,382
	Males	477	277	262	240	59	25	1,269	1,378	43	1,421
	Females	646	381	310	188	206	99	1,567	1,902	59	1,961
Asian/	Both Sexes	686	539	383	+	+	+	1,760	+	+	+
Pacific	Males	327	228	159	+	+	+	785	+	+	+
Islander ^c	Females	359	311	224	+	+	+	975	+	+	+
Hispanic ^d	Both Sexes	4,793	3,797	2,672	+	+	+	12,743	+	+	+
	Males	2,004	1,289	965	+	+	+	4,783	+	+	+
	Females	2,789	2,508	1,707	+	+	+	7,960	+	+	+

Estimated prevalence percent^a on January 1, 2011, of the SEER^c population diagnosed in the previous 19 years By Age at Prevalence, Race/Ethnicity and Sex

		Age Specific (Crude)									Age-Adjustedf	
Age at Prevalence		All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	+08	All Ages
Race All Races ^c	Sex Both Sexes Males Females	0.1944% 0.2051% 0.1841%	0.0003% 0.0002% 0.0003%	0.0030% 0.0027% 0.0033%	0.0287% 0.0185% 0.0393%	0.0978% 0.0694% 0.1263%	0.2026% 0.1656% 0.2393%	0.3399% 0.3440% 0.3359%	0.5105% 0.6304% 0.4020%	0.6446% 0.9005% 0.4388%	0.7067% 1.0955% 0.4790%	0.1870% 0.2132% 0.1701%
White ^c	Both Sexes	0.2525%	0.0002%	0.0037%	0.0377%	0.1288%	0.2611%	0.4308%	0.6328%	0.7985%	0.8403%	0.2345%
	Males	0.2642%	-	0.0033%	0.0242%	0.0888%	0.2094%	0.4296%	0.7704%	1.1032%	1.2982%	0.2620%
	Females	0.2408%	0.0003%	0.0042%	0.0523%	0.1709%	0.3144%	0.4321%	0.5044%	0.5474%	0.5698%	0.2179%
Black ^c	Both Sexes	0.0061%	-	-	-	0.0042%	0.0067%	0.0087%	0.0198%	0.0310%	0.0431%	0.0075%
	Males	0.0059%	-	-	-	0.0030%	0.0043%	0.0093%	0.0224%	0.0414%	0.0730%	0.0089%
	Females	0.0063%	-	-	-	0.0052%	0.0087%	0.0081%	0.0177%	0.0238%	0.0288%	0.0069%
Asian/	Both Sexes	0.0112%	-	0.0010%	0.0023%	0.0068%	0.0143%	0.0162%	0.0286%	0.0328%	0.0449%	0.0111%
Pacific	Males	0.0106%	-	-	0.0024%	0.0068%	0.0089%	0.0147%	0.0316%	0.0452%	0.0506%	0.0113%
Islander ^c	Females	0.0119%	-	-	0.0021%	0.0068%	0.0191%	0.0176%	0.0262%	0.0233%	0.0414%	0.0111%
Hispanic ^d	Both Sexes	0.0256%	-	0.0011%	0.0046%	0.0173%	0.0409%	0.0694%	0.1006%	0.1261%	0.1694%	0.0379%
	Males	0.0188%	-	0.0012%	0.0020%	0.0102%	0.0251%	0.0507%	0.0845%	0.1385%	0.2372%	0.0341%
	Females	0.0325%	-	0.0011%	0.0075%	0.0248%	0.0574%	0.0872%	0.1143%	0.1169%	0.1290%	0.0430%

US 2011 cancer prevalence counts are based on 2011 cancer prevalence proportions from the SEER registries and 1/1/2011 US population estimates based on the average of 2010 and 2011 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.
Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and

Not available.

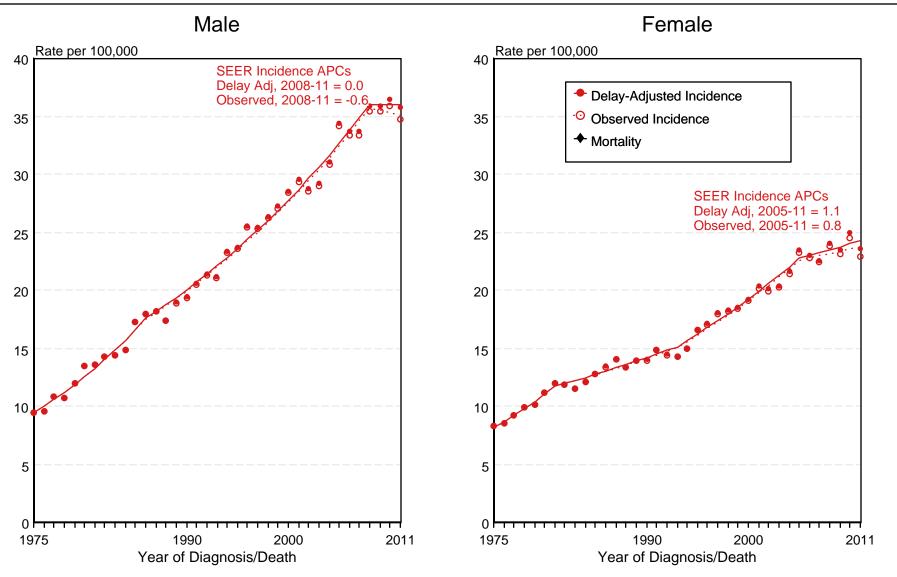
bcd Rural Georgia.

Maximum limited-duration prevalence: 36 years for 1975-2011 SEER 9 data; 19 years for 1992-2011 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups. (g) Cases diagnosed more than 36 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <36 and >=36. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry. f ghi

Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Melanoma of the Skin, White, by Sex

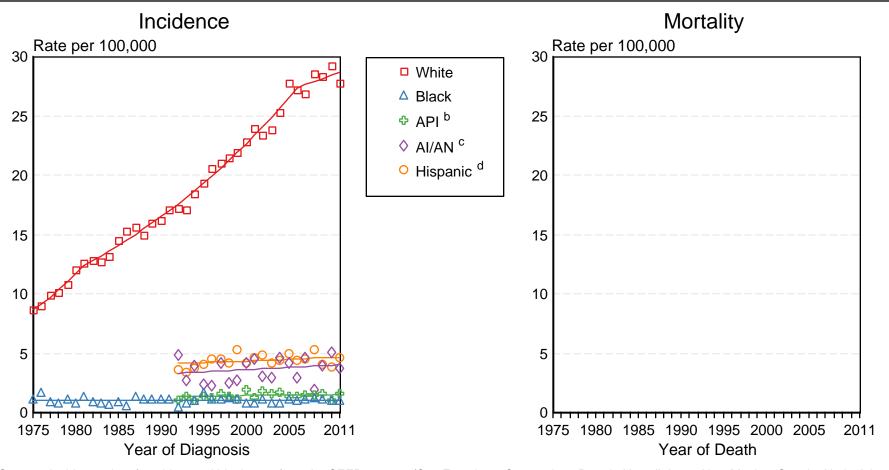


Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).
 Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
 Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.
 The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

The APC is significantly different from zero (p < 0.05).

SEER Incidence and US Death Rates^a Melanoma of the Skin, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2011 and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2011



Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

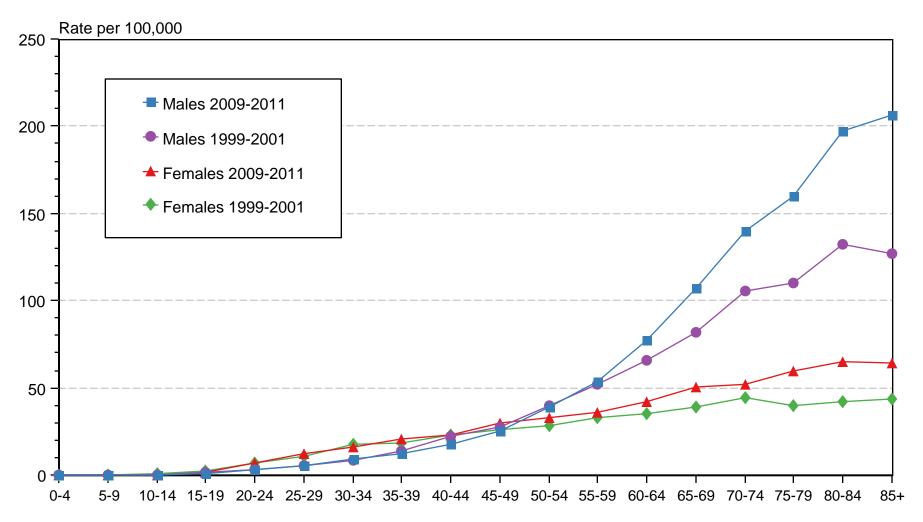
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
 Regression lines are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2011 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2011 allow a maximum of 3 joinpoints.
 API = Asian/Pacific Islander.

^c Al/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

d Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, South Carolina, Oklahoma, and Vermont.

Figure 16.3

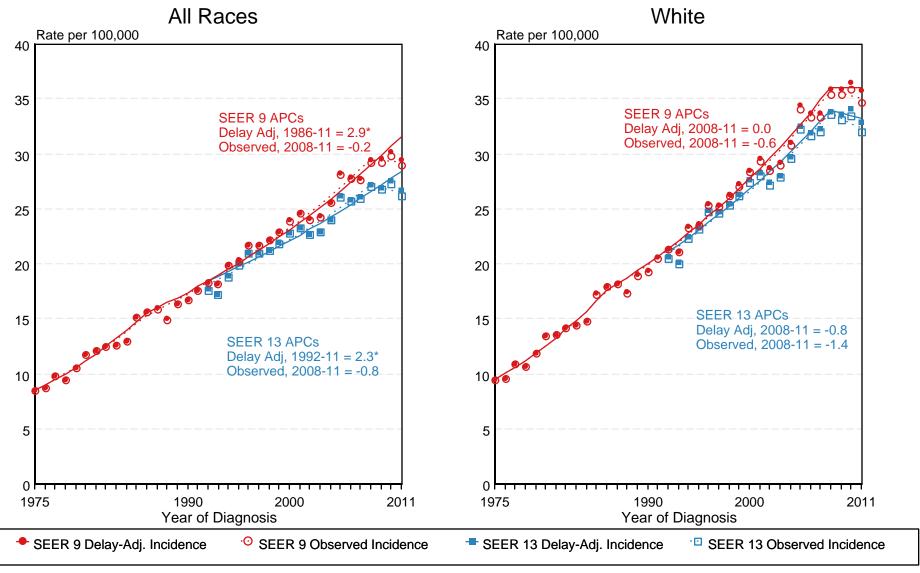
Melanoma of the Skin SEER Incidence 1999-2001 vs 2009-2011 White, by Age and Sex



Age at Diagnosis

Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are age-adjusted as appropriate to the 2000 US Std Population (19 age groups - Census P25-1103).

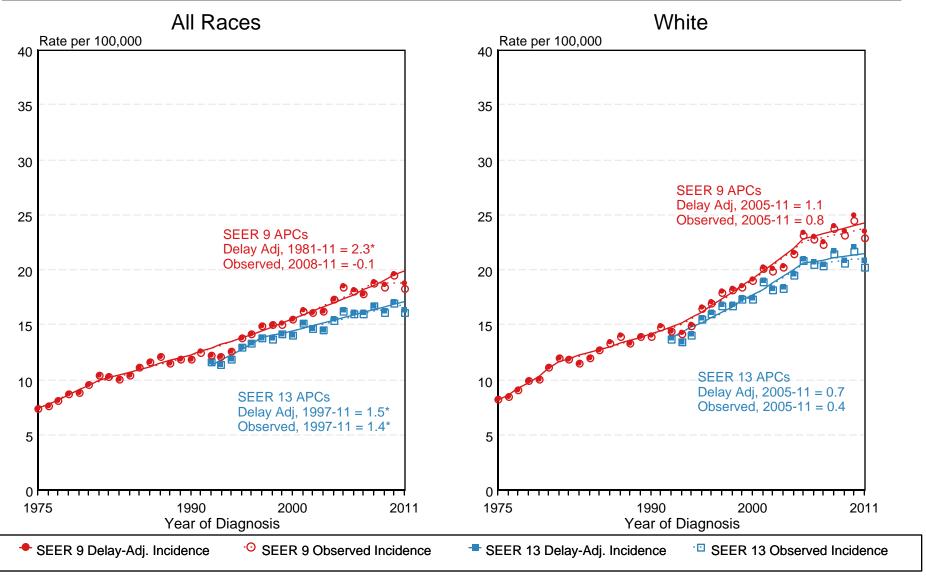
SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Melanoma of the Skin, Male, by Race



Source: SEER 9 areas and SEER 13 areas.
 Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
 Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.
 The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

^{*} The APC is significantly different from zero (p < 0.05).

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Melanoma of the Skin, Female, by Race

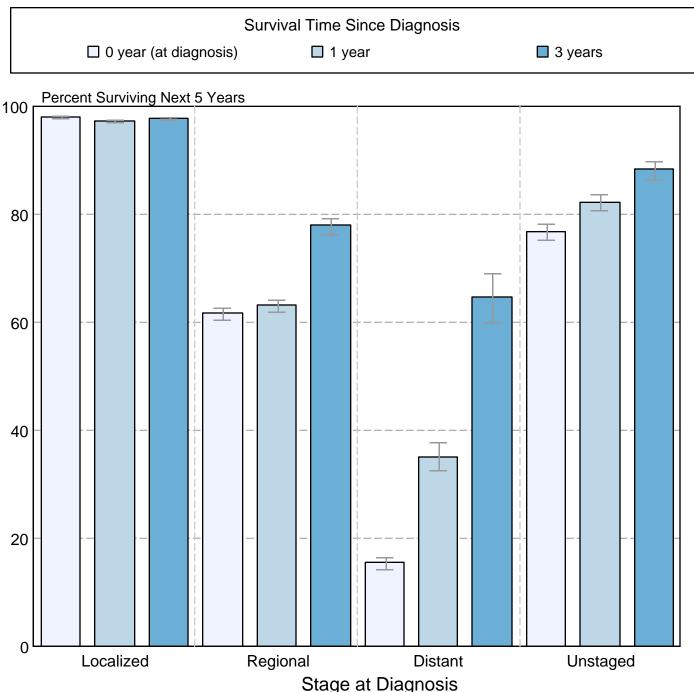


Source: SEER 9 areas and SEER 13 areas.
 Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
 Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.
 The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

^{*} The APC is significantly different from zero (p < 0.05).

Melanoma of the Skin 5-Year SEER Conditional Relative Survival and 95% Confidence Intervals

Probabilty of surviving the next 5 years given the cohort has already survived 0, 1, or 3 years 1998-2010 by stage at diagnosis



Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG). California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG contribute cases for diagnosis years 2000-2009. The remaining 13 SEER Areas contribute cases for the entire period 1998-2010.

Percent surviving is not shown if based on less than 25 cases.

Confidence intervals are not shown if length of the confidence interval is greater than 5 times the standard error.